TOP SECRET PRIORITY

P 281554Z

1964 DEC 28 16 15Z

NIS

OUT54747

FM NPIC

TO NAVRECONTECHSUPPCEN

ZEM

T O P S E C R E T [redacted] / CITE NPIC 3567 25X1

REF NAVRECONTECHSUPPCEN MSG P 181340Z DEC 64

1. IN REF TO REQUEST FOR "FINAL" EPHEMERIS DATA FOR MISSION 4007, THERE ARE TWO SOURCES OF DATA. ONE IS AN ORBIT EPHEMERIS, SIMILAR TO KH-4 MISSION ORBIT EPHEMERIDES, AND THE OTHER IS THE MISSION CORRELATION DATA WHICH IS UNIQUE TO THE KH-7 SYSTEM. THE FOLLOWING INFORMATION HAS BEEN EXTRACTED FROM BOTH SOURCES. INCLUDED IS DATA WHICH NPIC USES IN MENSURATION PROCEDURES FOR BULK OF KH-7 MISSIONS.

2. MISSION INFORMATION IS:

MISSION 4007 - DATE OF PHOTOGRAPHY 24 APRIL 1964 (GMT)

PASS D004 - MODE OF OPERATION STEREO (15 DEG ANGLE [illegible]

FRAME 009 - SYSTEMS TIME ON 2823.1 (SECONDS)

INDEX 17 - SYSTEMS TIME OFF 2828.6 (SECONDS)

CONE ANGLE (OBLIQUITY) 34 DEG: INCLUDES ROLL, CRAB, AND STEREO ANGLES.

ACCUMULATED FOOTAGE OF FILM EXPOSED AT BEGINNING OF CAMERA EVENT 13.7

ACCUMULATED FOOTAGE OF FILM EXPOSED AT END OF CAMERA EVENT [illegible]

GEODETIC LAT. AND LONG. OF START OF CAMERA EVENT MEASURED AT INTERSECTION OF THE CAMERA SYSTEM PRINCIPAL AXIS AND REFERENCE ELLIPSOID 53 DEG 07.9 MIN N 158 DEG 39.9 MIN E.

STARTING CLOCK TIME (OCTAL SYSTEM) 00647227

VEHICLE ROLL ANGLE: MINUS 31.9 DEG (MINUS INDICATES "L[illegible]

TOP SECRET

IN LINE OF FLIGHT" ATTITUDE.)

CAMERA CRAB ANGLE 1.5 DEG (THIS IS ANGLE MIRROR IS "COCKED" AFTER MIRROR IS TILTED AND VEHICLE IS ROLLED. IT IS A COMPENSATING MOVEMENT.)

FILM DRIVE SPEED IN INCHES PER SECOND: NOMINAL 2.96 (THIS IS PROGRAMMED. ACTUAL SPEED CAN BE MEASURED BY READING TIME TRACK OF FILM.)

COMPLETION CLOCK TIME (OCTAL SYSTEM) 00647316

PHOTO SCALES AT BEGINNING AND END OF CAMERA EVENT 1:99851 AND 1:99706

SUN ANGLE AND AZIMUTH AT BEGINNING AND END OF CAMERA OPERATION 48.7 DEG: 168 DEG AND 49.0 DEG: 168 DEG

GEODETIC POS. OF NADIR POINTS AT BEGINNING AND END OF PHOTO EVENTS 53 DEG 14 MIN N 160 DEG 16.3 MIN E TO 52 DEG 53 MIN N 160 DEG 00.2 MIN E.

HEIGHT IN NAUTICAL MILES MEASURED FROM VEHICLE TO REFERENCE ELLIPSOID SURFACE BEGINNING 87.3 END 87.1.

INTERTIAL VELOCITY OF VEHICLE IN FT./SEC AT BEGINNING AND END OF PHOTO 25,847 AND 25,848.

FOCAL LENGTH OF CAMERA IN FEET 6.411.

3. MISSION 4007 DATE OF PHOTOGRAPHY 24 APRIL 1964 (GMT)

PASS D004 - MODE OF OPERATION STEREO (MINUS 15 DEG STEREO ANGLE)

FRAME 010 - SYSTEM TIME ON 2836.6 (SECONDS)

INDEX 18 - SYSTEMS TIME OFF 2841.5 (SECONDS)

CONE ANGLE (OBLIQUITY) 33 DEG: INCLUDES ROLL, CRAB, AND STEREO ANGLES. ACCUMULATED FOOTAGE OF FILM EXPOSED AT BEGINNING OF

CAMERA EVENT 15.6 ACCUMULATED FOOTAGE OF FILM EXPOSED AT END OF CAMERA EVENT 16.5 GEOD. LAT. AND LONG. AT START OF CAMERA EVENT 53 DEG 08.2 MIN N 158 DEG 37.2 MIN E

STARTING CLOCK TIME (OCTAL) 00647430

VEHICLE ROLL ANGLE IN DEGREES MINUS 31.9 DEG ("LEFT WING DOWN")

CAMERA CRAB ANGLE IN DEGREES 1.5 DEG

FILM DRIVE SPEED IN INCHES PER SECOND 2.99 (NOMINAL)

COMPLETION CLOCK TIME (OCTAL) 00647517

PHOTO SCALES AT BEGINNING AND END OF CAMERA EVENT 1:99340 AND 1:99203

SUN ANGLE AND AZIMUTH AT BEGINNING AND END OF CAMERA OPERATION 48.7 DEG: 168 DEG AND 49.0 DEG: 168 DEG

GEODETIC POS. OF NADIR POINTS AT BEGINNING AND END OF PHOTO EVENT 52 DEG 24.7 MIN N 159 DEG 39.0 MIN E AND 52 DEG 03.6 MIN N 159 DEG 23.5 MIN E

HEIGHT IN NAUTICAL MILES MEASURED FROM VEHICLE TO REFERENCE ELLIPSOID SURFACE BEGIN 87.0 END 86.8

INERTIAL VELOCITY OF VEHICLE IN FT./SEC AT BEGINNING AND END OF CAMERA EVENT 25,849 FOCAL LENGTH OF CAMERA IN FEET 6.411. GP-1

T O P S E C R E T

--END OF MESSAGE--